

Search History
PRAI US 2001-306787P 20010720 (86) *STN*
DT Utility *HCAPLUS, INSPEC, JAPIO, USPATALL*
FS GRANTED *2/8/06*

EXNAM Primary Examiner: Le, H. Thi
LREP Reed & Eberle LLP, Reed, Dianne E., Eberle, Shelley P.
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 1201
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

BEST AVAILABLE COPY

=> d his

(FILE 'HOME' ENTERED AT 13:34:47 ON 08 FEB 2006)

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2' ENTERED AT 13:35:03 ON
08 FEB 2006

L1 72 S (SYNTHESIZ?) (8A) (COLLOIDAL (6A) NANOCRYSTAL?)
L2 727456 S (ELECTROMAGNET? (8A) EMISSION# OR ELECTROMAGNET?)
L3 16564 S (DISSOLV? (8A) SOLUTION# OR DISSOLV? (8A) LIQUID#) (10A) (METAL?)
L4 820405 S (AGITAT? OR STIR? OR MIX? OR COMBIN?) (8A) (SOLUTION# OR LIQUID
L5 405515 S (CONTROL? OR ALTERNAT? OR VARY? OR REGULAT?) (8A) (HEAT?)
L6 6297 S (LIGAND#) (6A) (STABILIZ?)
L7 67 S (ISOLAT? OR REMOV? OR CONFIN? OR SOLITAR?) (8A) (COLLOIDAL (4A) N
L8 1 S L1 AND L2 AND L3
L9 10935 S L3 AND L4
L10 210 S (SYNTHE?) (10A) (COLLOIDAL (8A) NANOCRYSTAL?)
L11 7 S L2 AND L10
L12 1 S L3 AND L11

=> d l12 abs, bib

L12 ANSWER 1 OF 1 USPATFULL on STN

AB The present invention discloses a method for **synthesis** of
narrowly dipersed **colloidal** PbS **nanocrystals** that
offer size-tunable near-infrared emission. The stability and
processibility of these near-infrared emitting quantum dots makes them
ideal materials for device applications. The use of cost-effective and
non-pyrophoric precursors as well as the success of larger scale
reactions means the present invention provides a method for the
industrial scale production of **PbS nanocrystals**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2005:141219 USPATFULL
TI **Synthesis of colloidal PbS nanocrystals**
with size tunable NIR emission
IN Hines, Margaret A., Clifton Park, NY, UNITED STATES
Scholes, Gregory D., Toronto, CANADA
PI US 2005-120946 A1 20050809
AI US 2003-727821 A1 20031204 (10)
DT Utility
FS APPLICATION
LREP John G. Posa, Gifford, Krass, Groh, Sprinkle,, Anderson & Citkowski,
P.C., 280 N. Old Woodward Ave., Suite 400, Birmingham, MI, 48009-5394,
US
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 458
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

STN

HEAPUS, INSPEC, INFO, USPTAW

BEST AVAILABLE COPY

=> d 111 1-7 abs,bib

2/8/06

L11 ANSWER 1 OF 7 USPATFULL on STN

AB A passive Q-switch for a laser system, and a method for its production. The laser is operative at near infrared wavelength region, including the eye-safe region. The Q-switch includes a saturable absorber based on IV-VI semiconductor nanocrystals (NCs), embedded in a polymer matrix. The NCs preferably include lead selenide, lead sulfide, or lead selenide sulfide. The NCs may be surface passivated, and may feature a PbSe/PbS core-shell configuration.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2005:291983 USPATFULL
TI Passive Q-switch laser
IN Galun, Ehud, Rehovot, ISRAEL
Lifshitz, Efrat, Haifa, ISRAEL
Sirota, Marina, Rehovot, ISRAEL
Krupkin, Vladimir, Rishon Lezion, ISRAEL
Sashchiuk, Aldona, Nazareth-Blite, ISRAEL
PA SLOP Electro-Optics Industries Ltd. and Technion Research and Development foundation Ltd (non-U.S. corporation)
PI US 2005254528 A1 20051117
AI US 2005-132037 A1 20050517 (11)
PRAI WO 2003-IL997 20031125
DT Utility
FS APPLICATION
LREP EDWARDS & ANGELL, LLP, P.O. BOX 55874, BOSTON, MA, 02205, US
CLMN Number of Claims: 80
ECL Exemplary Claim: 1-79
DRWN 9 Drawing Page(s)
LN.CNT 1394

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 2 OF 7 USPATFULL on STN

AB The present invention discloses a method for **synthesis** of narrowly dipersed **colloidal PbS nanocrystals** that offer size-tunable near-infrared emission. The stability and processibility of these near-infrared emitting quantum dots makes them ideal materials for device applications. The use of cost-effective and non-pyrophoric precursors as well as the success of larger scale reactions means the present invention provides a method for the industrial scale production of PbS nanocrystals.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2005:141219 USPATFULL
TI **Synthesis of colloidal PbS nanocrystals** with size tunable NIR emission
IN Hines, Margaret A., Clifton Park, NY, UNITED STATES
Scholes, Gregory D., Toronto, CANADA
PI US 2005120946 A1 20050609
AI US 2003-727821 A1 20031204 (10)
DT Utility
FS APPLICATION
LREP John G. Posa, Gifford, Krass, Groh, Sprinkle,, Anderson & Citkowski, P.C., 280 N. Old Woodward Ave., Suite 400, Birmingham, MI, 48009-5394, US
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 458

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 3 OF 7 USPATFULL on STN

AB A photonic crystal material and a method for producing such a material according to a predetermined, two-dimensional or three-dimensional porous template. The method include the steps of: (A) preparing a porous template, wherein the preparation step includes the sub-steps of (i) dissolving a first material in a volatile solvent to form an evaporative

solution, (ii) depositing a thin film of the solution onto a substrate, and (iii) exposing the solution film to a moisture environment while allowing the solvent in the solution to evaporate for forming the template that is constituted of an ordered array of micrometer- or nanometer-scaled air bubbles, which are surrounded with walls and are dispersed in a film of the first material; (B) filling the air bubbles with a second material; (C) at least partially removing the walls to create a plurality of voids; (D) refilling the voids with a third material; and (E) removing the second material from the air bubbles to obtain the photonic crystal material in the form of an array of air bubbles with walls made of the third material.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:156884 USPATFULL
TI Photonic crystals and method for producing same
IN Huang, Wen-Chiang, Auburn, AL, UNITED STATES
PI US 2003106487 A1 20030612
AI US 2001-6382 A1 20011210 (10)
DT Utility
FS APPLICATION
LREP Wen-Chiang Huang, 2076, S. Evergreen Dr., Auburn, AL, 36830
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 897

BEST AVAILABLE COPY

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 4 OF 7 USPATFULL on STN

AB Methods for synthesizing luminescent nanoparticles and nanoparticles prepared by such methods are provided. The nanoparticles are prepared by a method in which an additive is included in the reaction mixture. The additive may be a Group 2 element, a Group 12 element, a Group 13 element, a Group 14 element, a Group 15 element, or a Group 16 element. In additions, a luminescent nanoparticle is provided that comprises a semiconductive core surrounded by an inorganic shell, an interfacial region and an additive present in the interfacial region or both the interfacial region and the shell.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:23428 USPATFULL
TI Luminescent nanoparticles and methods for their preparation
IN Treadway, Joseph A., Fremont, CA, UNITED STATES
Zehnder, Donald A., San Carlos, CA, UNITED STATES
Schrier, Marc D., El Granada, CA, UNITED STATES
PI US 2003017264 A1 20030123
US 6815064 B2 20041109
AI US 2002-198635 A1 20020717 (10)
PRAI US 2001-306787P 20010720 (60)
DT Utility
FS APPLICATION
LREP REED & ASSOCIATES, 800 MENLO AVENUE, SUITE 210, MENLO PARK, CA, 94025
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 1171

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 5 OF 7 USPATFULL on STN

AB The present invention provides for a device and method for detecting genetic material. The device includes at least one hairpin sensor or, preferably two or more hairpin sensors, spatially and/or spectrally multiplexed on a conductive or semi-conductive substrate or particle. The at least one hairpin sensor includes a quenchable fluorescing agent bound to a hairpin loop assembly and the hairpin loop assembly includes a probe complementary to a nucleotide sequence of interest. The method includes providing at least one hairpin sensor, exposing the at least one hairpin sensor to a sample of interest, and detecting fluorescence produced by the quenchable fluorescing agent. The fluorescence indicates the binding of a target nucleotide sequence to the complementary probe

of the hairpin loop assembly.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:17357 USPATFULL
TI Hairpin sensors using quenchable fluorescing agents
IN Ballinger, Clinton T., Burnt Hills, NY, UNITED STATES
LoCascio, Michael, Albany, NY, UNITED STATES
Landry, Daniel P., Clifton Park, NY, UNITED STATES
PI US 2003013109 A1 20030116
AI US 2002-176055 A1 20020621 (10)
PRAI US 2001-299460P 20010621 (60)
DT Utility
FS APPLICATION
LREP KENYON & KENYON, 1500 K STREET, N.W., SUITE 700, WASHINGTON, DC, 20005
CLMN Number of Claims: 40
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 1390

BEST AVAILABLE COPY

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 6 OF 7 USPATFULL on STN

AB The invention relates to new semiconductor composite nanocrystal materials having desirable luminescent properties, specifically high quantum yields and good photochemical stability with specific, desirable emittance wavelengths, preferably in the near infrared. This invention further relates to various applications in optical, electrical, electro-optical and laser devices, particularly in the field of telecommunication, of these new semiconductor composite nanocrystal materials.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:15258 USPATFULL
TI Semiconductor nanocrystalline materials and their uses
IN Banin, Uri, Mevasseret Zion, ISRAEL
Cao, Yun-Wei, Evanston, IL, UNITED STATES
PI US 2003010987 A1 20030116
AI US 2002-145609 A1 20020510 (10)
RLI Continuation of Ser. No. WO 2001-IL828, filed on 3 Sep 2001, UNKNOWN
PRAI IL 2000-138471 20000914
DT Utility
FS APPLICATION
LREP William S. Frommer, Esq., FROMMER LAWRENCE & HAUG LLP, 745 Fifth Avenue, New York, NY, 10151
CLMN Number of Claims: 43
ECL Exemplary Claim: 1
DRWN 14 Drawing Page(s)
LN.CNT 1570

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 7 OF 7 USPAT2 on STN

AB Methods for synthesizing luminescent nanoparticles and nanoparticles prepared by such methods are provided. The nanoparticles are prepared by a method in which an additive is included in the reaction mixture. The additive may be a Group 2 element, a Group 12 element, a Group 13 element, a Group 14 element, a Group 15 element, or a Group 16 element. In additions, a luminescent nanoparticle is provided that comprises a semiconductive core surrounded by an inorganic shell, an interfacial region and an additive present in the interfacial region or both the interfacial region and the shell.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:23428 USPAT2
TI Luminescent nanoparticles and methods for their preparation
IN Treadway, Joseph A., Fremont, CA, United States
Zehnder, Donald A., San Carlos, CA, United States
Schrier, Marc D., El Granada, CA, United States
PA Quantum Dot Corporation, Hayward, CA, United States (U.S. corporation)
PI US 6815064 B2 20041109
AI US 2002-198635 20020717 (10)